



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

Experiment 1

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Semester: 6th
Subject Name: Full Stack

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Section: 23AIT KRG 1(G2)
Date of Performance: 14/01/26
Subject Code: 23CSH-382

1. Aim: To design and implement the foundational frontend architecture of the EcoTrack application using modern React practices, Vite tooling, and ES6+ JavaScript features.

2. Objective:

- To set up a React project using Vite with proper project structure
- To understand component-based architecture in React
- To apply ES6 array methods (map, filter, reduce) for data-driven UI rendering
- To separate concerns using components, pages, and data modules

3. Implementation/Code:

Logs.jsx:

```
export const logs = [
  { id: 1, activity: "Car Travel", carbon: 4 },
  { id: 2, activity: "Electricity Usage", carbon: 6 },
  { id: 3, activity: "Cycling", carbon: 0 },
  { id: 4, activity: "Bus Travel", carbon: 3 },
  { id: 5, activity: "Solar Energy Usage", carbon: 1 },
  { id: 6, activity: "Flight Travel", carbon: 8 },
];
export default logs;
```

Lcarbons.jsx:

```
import logs from "./logs";
const hcarbon = logs.filter(log=> log.carbon <=3);
export default hcarbon;
```

hcarbons.jsx:

```
import logs from "./logs";
const hcarbon = logs.filter(log=> log.carbon >=4);
export default hcarbon;
```

Dashboard.jsx:

```
import logs from '../data/logs'
import Header from '../components/header'
import hcarbon from '../data/hcarbon'
import lcarbon from '../data/lcarbon'
const totalCarbon = logs.reduce ((sum, log) => sum+log.carbon,0)

const Dashboard = () => {
  return (
    <div>
      <h2>{Header}</h2>
      <p style={{padding
        :1rem,backgroundColor:"#3175a2",color:"#d6eaf8",textAlign:"center"
      }}>Total Carbon Footprint:{totalCarbon}</p>

      <ul style={{padding
        :1rem,backgroundColor:"white",color:"#111",textAlign:"center"
      }}>
        {logs.map((log)=>(
          <li key={log.id}>
            {log.activity}:{log.carbon} kgs
          </li>
        )))
      </ul>
      <p style={{padding
        :1rem,backgroundColor:"#3175a2",color:"#d6eaf8",textAlign:"center"
      }}>High carbon emission</p>
      <ul style={{padding
```

```

        :"1rem",backgroundColor:"#eab6a6",color:"#ff3c00",textAlign:"center
      "}>
    {hcarbon.map((log)=>(
      <li key ={log.id}>
        {log.activity}:{log.carbon} kgs
      </li>
    )))
  </ul>

  <p style={{padding
    :"1rem",backgroundColor:"#3175a2",color:"#d6eaf8",textAlign:"cente
r" }}>Low carbon emission</p>
  <ul style={{padding
    :"1rem",backgroundColor:"#c4f0d7",color:"#0bec6c",textAlign:"cente
r" }}>
    {lcarbon.map((log)=>(
      <li key ={log.id}>
        {log.activity}:{log.carbon} kgs
      </li>
    )))
  </ul>
</div>

)
}

export default Dashboard;

```

App.jsx:

```

import Header from "./components/header";
import Dashboard from "./pages/Dashboard";

function App (){
  return (
    <>
    <Header title="Eco Tracker : Experiment 1 "/>
    <Dashboard/>

    </>
  )
}

export default App;

```

4. Output



5. Learning Outcome

1. Learnt about vite+react files.
2. Learnt about component based architecture in react.
3. Learnt To apply ES6 array methods (map, filter, reduce) for data-driven UI rendering.